[redacted]

2 February 1962

MEMORANDUM FOR [redacted]

SUBJECT: LANYARD Program

In response to your request we have taken a look at the proposed LANYARD program as a possible addition to the existing NRP. The basic assumptions and the desired goals tend to limit the solutions that become practicable. The following list of assumptions outline the boundary conditions in which we considered the LANYARD program.

We have assumed:

1. Based on your discussions as a result of a similar exercise in November that resulted in the cancellation of [redacted] there are a limited number of high priority targets that can be identified today for which coverage at less than 5 ft resolution is necessary. The number of targets to be covered by June 1963 at 5 ft or less resolution is of the order of 10.

2. Thor production will continue at 4 per month.

3. Agena D production program will be established and maintained at 5 per month.

4. The currently available or programmed spare payloads subsequent to November of 1962 will remain: 2 Argon, 2 Mural, and 1 Corona.

5. [redacted] and/or Nimbus will provide sufficient data to assure 85% probability of clear weather over a specific target. If we use Thorad (84° retrograde orbit) we can cover a large percentage of the high priority, high resolution targets during first day operation. Without Thorad we are limited to 75° to 82° prograde orbits which will give us a large percentage of high priority, high resolution target coverage within the two-day orbit.

6. With the inclusion of lifeboat the probability of success should increase from .3 to .4 and therefore 5 LANYARD launches should result in two successes.

ARGON MURAL CORONA

HANDLE VIA THE LANYARD CONTROL [redacted] ONLY

[redacted]

[redacted]

7. All 5 LANYARDS probably could be launched prior to first successful [redacted]

8. The resolution provided by the systems is:

201 - approximately 10 ft.

M - approximately 10 ft.

L - less than 5 ft.

[redacted]

9. LANYARD will be able to use SO 132 or the new film being developed by EKC.

10. The latest test result of lens 05 and 07 by Photo Lab at Wright Field is approximately 110 lines/mm at 2 to 1 contrast ratio.

CONCLUSIONS:

1. As a result of cancellation of M 17 thru 22, the Mark Va recovery systems are also cancelled. With the already available spare payloads and the proposed LANYARD payloads we should not cancel the 6 Mark V a recovery system.

2. There is a reasonable probability that we could get less than 5 ft resolution coverage of a limited number of highest priority targets by May of 1963 and that [redacted] will not provide equivalent coverage before June of 1963.

3. It would appear highly desirable to have the flexibility with payloads to go with ARGON, MURAL, or LANYARD.

RECOMMENDATIONS:

1. That we provide for spare payloads as follows:

M - 5 (procure 3 more)

L - 5

[redacted]

[redacted]

A - 2

I A - 4 (Look at conversion to Thor/Agena D plus ulage)

2. That we procure 6 Mark V a Recovery Systems.

NOTE: In order to procure 3 M and 6 Mk V a without a break in production we must procure now:

lost 6 Mark V a -
3 M -

[redacted]

3. That we procure L 1 thru 5.

4. That we schedule L at the earliest possible time.

1 Atch
sched.

[redacted]